

Claims

- [c1] 1. Method for up-shifting of an automatic or semi-automatic gearbox which is connected to an engine equipped with an additional engine brake, which method comprises determining an expected value of the speed derivative (ESG_e) of said engine during said gearshift, wherein said method comprises:
- measuring the speed derivative (ESG_m) of the engine during said gearshifting (21),
- calculating a difference value which corresponds to the difference between the measured value of the speed derivative (ESG_m) and the expected value of the speed derivative (ESG_e), and updating the expected value of the speed derivative (ESG_e) to a new value which closely corresponds to said measured value of the speed derivative (ESG_m) if said difference value exceeds a predetermined threshold value (x).
- [c2] 2. Method according to claim 1, wherein said updating is carried out by replacing said expected value of the speed derivative (ESG_e) by said measured value of the speed derivative (ESG_m) directly after said calculation.
- [c3] 3. Method according to claim 1, wherein said updating is

carried out by means of a successive change of said expected value of the speed derivative (ESG_e) in the direction of a value which corresponds to said measured value of the speed derivative (ESG_m).

- [c4] 4. Method according to claim 3, wherein said successive change takes place stepwise.
- [c5] 5. Method according to claim 3, wherein said successive change takes place continuously.
- [c6] 6. Method according to claim 3, wherein said successive change takes place by replacing said expected value of the speed derivative (ESG_e) with a value that corresponds to an average value of a previously determined number of values of the measured speed derivative (ESG_m).
- [c7] 7. Method according to claim 1, wherein it comprises compression braking using said additional engine brake.
- [c8] 8. Device for up-shifting of an automatic or semi-automatic gearbox which is connected to an engine equipped with an additional engine brake, comprising a control unit for initiating gearshifting and for storing an expected value of the speed derivative (ESG_e) of said engine during said gearshifting, wherein said device comprises means for measuring the speed derivative (ESG_m) of the engine during said gearshifting (21), with said

control unit being adapted to calculate a difference value which corresponds to the difference between the measured value of the speed derivative (ESG_m) and the expected value of the speed derivative (ESG_e), and for updating the expected value of the speed derivative (ESG_e) to a new value which corresponds to said measured value of the speed derivative (ESG_m) if said difference value exceeds a predetermined threshold value (x).

- [c9] 9. Device according to claim 8, wherein said control unit is arranged to initiate compression braking of said engine.